# THE INVASIVE SPECIES DATA SERVICE

## Towards Operational Use of ESE Data in the USGS Invasive Species Decision Support System

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**Abstract**

We propose to build an Invasive Species Data Service (ISDS) to provide customized, easily accessible data products and tools to support invasive species management and policy decision-making. The ISDS will be a networked service that integrates a suite of NASA ESE data providers with the data resources of the National Biological Information Infrastructure (NBII). Aggregated ISDS data will feed directly into the National Invasive Species Forecasting System, which is a core component of an invasive species decision support capability being developed jointly by the USGS and NASA. This activity will thus provide an efficient interface between existing ESE data systems and decision support systems that are the province of federal agencies and other national organizations. It builds upon previous ESE investments in this area and will significantly broaden the use of ESE data in managing the Nation's invasive species threat. In building the ISDS, we will refine the notion of Web-based service interoperability using SEEDS principles to specialize EOS Clearing House (ECHO) technologies. The result will be a tailored interface that combines biological and earth science data to meet the specific needs of a large and expanding community of ecologists and natural resource managers who deal with invasive species. A broadly representative users group will help shape development of the ISDS and align its activities with current and future needs. The work will contribute to NASA's plans for future ESE data systems by engaging a new client community that has a focused, thematic, and interdisciplinary data integration problem of national importance. The ISDS will be made available through NBII and the USGS National Institute of Invasive Species Science. This work will lead to a fully operational capability of national scope vital to understanding and managing the effects of invasive species on human health, the economy, native biodiversity, and ecosystem processes.